

AMENDMENTS

Claims 1-4 and 6-13 are pending.

Claims 1, 3-4, and 9-10 have been amended.

Claims 11-13 have been added.

Claim 5 have been cancelled.

Support for the amendments is found in the claims and specification (e.g., page 5, lines 20-26; and pages 5-6, the bridging paragraph), as originally filed. In addition, support for claims 3-4 and 9 can be found in Examples 1 and 2 describing the first agent *comprising* components (1), (2), and (3) (Example 1), and, in addition, (4) (Example 2) and the second agent *comprising* components (4)-(5) (Example 1) and (5)-(8) (Example 2).

No new matter is believed to have been added.

REMARKS/ARGUMENTS

The claimed navel cavity cleansing agent is either poured into or applied to a navel cavity, solidifies after a specified period of time and takes a form that can be removed from said navel cavity together with dirt in said navel cavity, wherein the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, is 3 minutes or longer. The claimed cleansing agent removes dirt such as bellybutton lint and can be easily removed without hurting the inner surface of the navel cavity (page 2 of the present specification).

Claims 1-3 are rejected under 35 U.S.C. 102(b) over Edgerton et al., US 4,412,096, as evidenced by “Questions”, page 7, paragraph 4, “Protocol for Earmold Impression” and Schwabe et al., US 4,891,400. The rejection is traversed because the cited references do not describe or suggest:

- (a) a navel cleansing agent;
- (b) that the agent can remove dirt from the navel cavity,

(c) a navel cleaning agent having the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, of 3 minutes or longer, and

(d) the cleansing agent of claims 9-10.

(a)-(b) Edgerton et al. describe a fast-setting flexible *earmold* made of elastomeric materials comprising parts (A) and (B). Part (A) comprises a dimethyl vinyl chain-stopped polydimethyl siloxane copolymers (col. 3, lines 53-68), a silica filler, a calcium carbonate filler, mineral oil, and a hydride containing trimethyl endblocked polysiloxane (col. 4, lines 1-19). Part (B) comprises a dimethyl vinyl chain-stopped polydimethyl siloxane copolymers of part (A), a silica filler, a calcium carbonate filler, mineral oil, and a platinum catalyst (col. 4, lines 20-36).

The Examiner has cited US Patent No. 4,891,400 as disclosing a trimethyl endblocked polysiloxane of col. 4, lines 5-15, of Edgerton et al. as a cross-linking agent.

The Examiner has also cited “Questions”, page 7, paragraph 4, to show that an earmold composition can be applied to a *human ear* and can be sticky.

It is noted that “Questions” do not describe or suggest removing dirt from ears with an earmold. “Questions” describes that oil prevents the silicon from sticking to the skin (page 7, paragraph 3). Thus, oil can also prevent dirt from sticking to the silicon (i.e., oil prevents removing dirt with the mold).

The Examiner has also cited “Protocol for Earmold Impression” to show that an earmold can remove wax/debris adhered to the mold from *human ears*.

“Questions” and “Protocol for Earmold Impression” do not describe that dirt form the *navel cavity* (which is different from ear wax or ear debris) can be removed with the Edgerton et al. cleansing agent.

The Examiner has indicated that the limitation “a navel cleansing agent” do not limit the claims because it appears in the preamble. Applicants respectfully disagree because claims 1 an 9 recite in the *body* that the navel cleansing agent can be removed together from the dirt from a navel cavity. The claimed cleansing agent has to be capable of removing dirt from the navel cavity. Thus, a navel cleansing agent has to be given patentable weight.

(c) Also, the cited references do not describe a navel cleaning agent having the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, of 3 minutes or longer (or 3-20 and 3-15 min).

The excerpt of the material titled “Newly Edited Dentistry Engineering” published on April 20, 1987 by Gakken Shoin Kabushiki Kaisya (in Japanese) is attached with this paper. Applicants provide an explanation herewith why this references is relevant. Specifically, the curing time is around the cross point of extended lines of viscosity curve before and after of the onset of the viscosity jump. As clear from a graph of Fig. 4-6 of page 76 of the material, curing time (the point of the graph where the viscosity (the vertical axis) starts a steep uprising) of most of the *conventional dental molding agents* is within 3 minutes, which time is shorter than the curing time of the present invention (3 minutes or longer). Please see the following translation of the Fig. 4-6 of page.

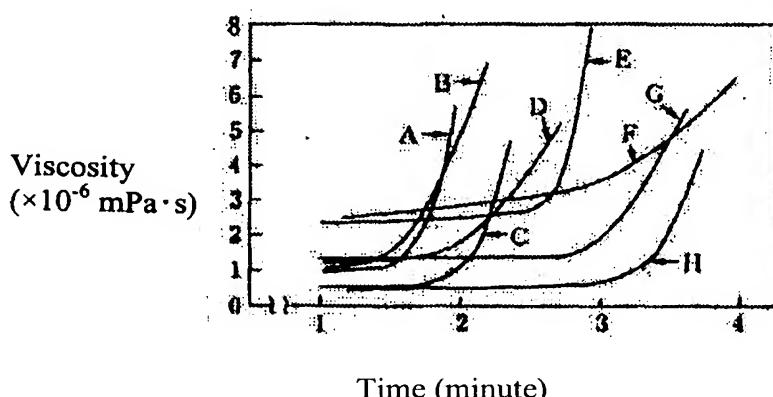


Fig. 4-6 Viscosity change while curing

Reasons for a short curing time of the dental molding agents are that (1) most of dental staff is skillful (professional), so that it is possible for them to prepare an even mixture and apply it within one minute, and (2) since those who are treated have to contain an amount of molding agents in their mouth and wait for the treatment with their mouth open, all the treatment should be completed as swift as possible.

The present invention sets the curing time of the cleansing agent to be 3 minutes or longer because (1) it is necessary that a nonprofessional can sufficiently mix the agents without failure of curing before filling or uneven curing, and (2) in terms of usage, a short-time curing is not so much demanded for a navel cleansing agent compared to agents for the oral use.

(d) Lastly, the cited references do not describe a navel cleansing agent comprising a reactive silicone base and a crosslinking agent in the specific combination, i.e., a hydroxylated diorganopolysiloxane containing at least two hydroxyl groups in the molecule and an alkoxy silane containing at least two alkoxy groups in the molecule (as in claims 9-10).

The Examiner is of the opinion that although the cited references describe a silicon composition for an ear mold without describing its properties, the claimed properties are inherent because “the claimed composition was already known” (see page 5 of the Official Action (OA)).

Applicants respectfully disagree because although various silicones are known, the cited references do not suggest selecting polymers having the claimed properties which are related to, for example, molecular weight (MW) of a polymer and used components. Thus, silicon polymers used in an ear/dental mold do not necessarily have the same MW (and, therefore, the same properties) as the polymers used for the claimed navel cavity cleansing agent. *See Polymers in Aqueous Media, Advances in Chemistry Series (Ed. E. Glass, American Chemical Soc., Washington, DC), pages 417-420 (1989) and Introduction to*

Polymer Science and Technology: An SPE Texbook (Ed. H. Kaufman, John Willey & Sons, New York) pages 184-187 (1977), showing that properties of polymers depend upon, for example, molecular weight.

Thus, Edgerton et al. do not anticipate the claimed navel cavity cleansing agent.

Edgerton et al. do not make the claimed navel cleansing agent obvious because one would not have been motivated with a reasonable expectation of success to use the Edgerton et al. earmold composition for cleansing a navel cavity which does not require a short time curing (below 3 min) compared to *conventional dental molding agents* having the curing time below 3 min.

Claims 9-10 are re rejected under 35 U.S.C. 102(b) over Colas et al., US 5,556,914.

The rejection is traversed because the cited references do not describe or suggest:

- (a) a navel cleansing agent;
- (b) a navel cleaning agent having the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, of 3-20 minutes (or 3-15 min), and
- (c) that the agent can remove dirt from the navel cavity.

Colas et al. describe flexible silicon rubber molds for manufacturing shaped articles (col. 1, lines 8-11).

However, Colas et al. use a long solidifying time, i.e., the casting of RTV were cured at room temperature for 24 hours to provide cured silicon rubber layers approximately 5 mm thick minimum (col.4, line 11).

Thus, the Colas et al. rubber requires a long curing time which is not acceptable to be used for removing dirt from a navel cavity.

In addition, Colas et al.'s rubber is used to prepare molds to duplicate the details of wood grain, wood carving, fabrics form a master (col. 1, lines 18-20) which does not necessarily mean that the mold can be easily removed from the skin and also can remove dirt from the skin, for example, because of a different and delicate texture of the skin and the presence of an oil on the skin.

Thus, Colas et al. do not anticipate or make obvious the claimed navel cleansing agent.

Claims 1-4 are rejected as obvious over Edgerton et al., Fujiki et al., US 5,360,858, Arkles, US 4,714,739, and McDermott et al., US 5,674,966. The rejection is traversed because the combination of the references does not describe or suggest (a) a navel cleansing agent (b) that the agent can remove dirt from the navel cavity, (c) a navel cleaning agent having the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, of 3 minutes or longer, and (d) the specific claimed combination of a hydroxylated diorganopolysiloxane containing at least two hydroxyl groups in the molecule and an alkoxy silane containing at least two alkoxy groups in the molecule (as in claim 9).

Claim 4 is directed to a body cavity cleansing agent comprising (i) a hydroxylated diorganopolysiloxane containing at least two hydroxyl groups and an alkoxy silane containing at least two alkoxy groups, or (ii) a vinyl-terminated diorganopolysiloxane containing at least two vinyl groups and a hydrogenated diorganopolysiloxane containing at least two Si-H groups.

Edgerton et al. describe a combination of a vinyl-terminated diorganopolysiloxane containing at least two vinyl groups and trimethyl endblocked polysiloxane (comprises Si-H groups).

Fujiki et al. describe that a silicon rubber can comprise a vinyl-terminated diorganopolysiloxane containing at least two vinyl groups and a hydrogenated diorganopolysiloxane containing at least two Si-H groups (col. 2-3).

The Examiner has relied on Arkles and McDermott et al. to show that substituting a trimethyl endblocked polysiloxane of Edgerton et al. with a hydrogenated diorganopolysiloxane of Fujiki et al. is obvious because both compounds are cross-linking compounds comprising Si-H groups and that a molar excess of hydride to alkenyl improves a formulation.

In response, it is noted that the combination of the references still does not describe or suggest that dirt form the navel cavity (which is different from ear wax or ear debris) can be removed with the cleansing agent of the cited references.

It is also noted that “Questions” do not describe or suggest removing dirt with the earmold. “Questions” describes that oil prevents the silicon from sticking to the skin (page 7, paragraph 3). Thus, oil can also prevent dirt from sticking to the silicon (i.e., oil can prevent removing ear wax with the mold).

In addition, “Questions” and “Protocol for Earmold Impression” do not describe that dirt form the navel cavity (which is different from ear wax or ear debris) can be removed with the Edgerton et al. cleansing agent.

One would not have been motivated with a reasonable exception of success to use the composition of the cited references for removing ear wax, not to mentioned, dirt from the navel cavity, based on the disclosure of the cited references because (i) the composition of the cited references is used for an earmold, (ii) the references do not suggest that dirt can be removed by the earmold and/or navel mold, and (iii) ear wax is not necessarily the same as dirt of the navel cavity.

Further, the claimed navel cleaning agent has the solidifying (curing) time, which is the time required until the composition sets and can be removed as a solid material, of 3 minutes or longer. The cited references do not describe or suggests selecting the claimed curing time. In fact, the curing time for molds can be as long as 24 hours as described in Colas et al. and in the attached material titled “Newly Edited Dentistry Engineering” published on April 20, 1987 by Gakken Shoin Kabushiki Kaisya.

The curing time is around the cross point of extended lines of viscosity curve before and after of onset of viscosity jump. As clear from a graph of Fig. 4-6 of page 76 of the material, curing time (the point of the graph where the viscosity (the vertical axis) starts a steep uprising) of most of the *conventional dental molding agents* is within 3 minutes, which time is shorter than the curing time of the present invention (3 minutes or longer). Please see the following translation of the Fig. 4-6 of page.

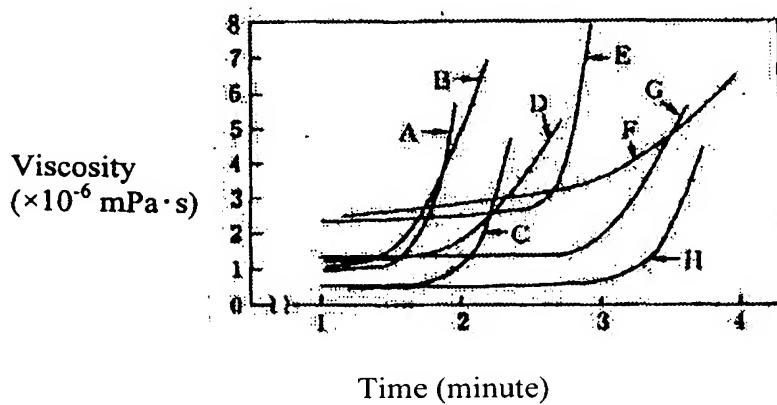


Fig. 4-6 Viscosity change while curing

Reasons for a short curing time of the dental molding agents are that (1) most of dental staff is skillful (professional), so that it is possible for them to prepare an even mixture and apply it within one minute, and (2) since those who are treated have to contain an amount of molding agents in their mouth and wait for the treatment with their mouth open, all the treatment should be completed as swift as possible.

The present invention sets the curing time of the cleansing agent to be 3 minutes or longer because (1) it is necessary that a nonprofessional can sufficiently mix the agents without failure of curing before filling or uneven curing, and (2) in terms of usage, a short-time curing is not so much demanded for a navel cleansing agent compared to agents for the oral use.

In addition, the cited references do not describe a combination of a hydroxylated diorganopolysiloxane containing at least two hydroxyl groups and an alkoxy silane containing at least two alkoxy groups (as in claim 9).

Thus, Edgerton et al., Fujiki et al., Arkles, and McDermott et al. do not make the claimed agent obvious.

Applicants request that the rejection be withdrawn.

Claims 1-4, 9, and 10 are rejected under 35 U.S.C. 112, second paragraph. The claims have been amended and it is believed that the claims are clear. Applicants request that the rejection be withdrawn.

The Examiner has not considered JP 9-205699 listed on the IDS submitted on November 23, 2006 allegedly because Applicants had not provided a relevancy statement. Applicants respectfully disagree.

Applicants submitted JP 9-205699 and an English translation of a Notice of Rejection (mailed August 22, 2006) which describes a disclosure of JP 9-205699 (designated as Reference 1) in paragraph “Remarks” on November 21, 2006.

However, to expedite prosecution, Applicants have submitted an automatic English translation of JP 9-205699 with this paper. Applicants request that JP 9-205699 be considered.

A Notice of Allowance for all pending claims is requested.

Respectfully submitted,

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